Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade K			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	TN	MA.K.GLE 0006.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Finding the Center of Gravity Using Rulers	TN	MA.K.GLE 0006.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Rulers	TN	MA.K.GLE 0006.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 1			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	TN	MA.1.GLE 0106.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Finding the Center of Gravity Using Rulers	TN	MA.1.GLE 0106.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Rulers	TN	MA.1.GLE 0106.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Finding the Center of Gravity Using Rulers	TN	MA.1.GLE 0106.4.3	Use non-standard units in linear measurement.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 2			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	TN	MA.2.GLE 0206.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.

Finding the Center of Gravity Using Rulers	TN	MA.2.GLE 0206.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Finding the Center of Gravity Using Rulers	TN	MA.2.GLE 0206.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Finding the Center of Gravity Using Rulers	TN	MA.2.GLE 0206.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Rulers	TN	MA.2.GLE 0206.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 3			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	TN	MA.3.GLE 0306.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Finding the Center of Gravity Using Rulers	TN	MA.3.GLE 0306.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Finding the Center of Gravity Using Rulers	TN	MA.3.GLE 0306.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Finding the Center of Gravity Using Rulers	TN	MA.3.GLE 0306.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Rulers	TN	MA.3.GLE 0306.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Finding the Center of Gravity Using Plumb Lines	TN	MA.3.GLE 0306.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Finding the Center of Gravity Using Plumb Lines	TN	MA.3.GLE 0306.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.

Finding the Center of Gravity Using Plumb Lines	TN	MA.3.GLE 0306.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Finding the Center of Gravity Using Plumb Lines	TN	MA.3.GLE 0306.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Plumb Lines	TN	MA.3.GLE 0306.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Changing the Center of Gravity Using Moment Arms	TN	MA.3.GLE 0306.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Changing the Center of Gravity Using Moment Arms	TN	MA.3.GLE 0306.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Changing the Center of Gravity Using Moment Arms	TN	MA.3.GLE 0306.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Changing the Center of Gravity Using Moment Arms	TN	MA.3.GLE 0306.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Changing the Center of Gravity Using Moment Arms	TN	MA.3.GLE 0306.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 4			
Activity/Lesson	**State**	**Standards**	
Finding the Center of Gravity Using Rulers	TN	MA.4.GLE 0406.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Finding the Center of Gravity Using Rulers	TN	MA.4.GLE 0406.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Finding the Center of Gravity Using Rulers	TN	MA.4.GLE 0406.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.

Finding the Center of Gravity Using Rulers	TN	MA.4.GLE 0406.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Rulers	TN	MA.4.GLE 0406.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Finding the Center of Gravity Using Plumb Lines	TN	MA.4.GLE 0406.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Finding the Center of Gravity Using Plumb Lines	TN	MA.4.GLE 0406.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Finding the Center of Gravity Using Plumb Lines	TN	MA.4.GLE 0406.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Finding the Center of Gravity Using Plumb Lines	TN	MA.4.GLE 0406.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Finding the Center of Gravity Using Plumb Lines	TN	MA.4.GLE 0406.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Changing the Center of Gravity Using Moment Arms	TN	MA.4.GLE 0406.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Changing the Center of Gravity Using Moment Arms	TN	MA.4.GLE 0406.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Changing the Center of Gravity Using Moment Arms	TN	MA.4.GLE 0406.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Changing the Center of Gravity Using Moment Arms	TN	MA.4.GLE 0406.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Changing the Center of Gravity Using Moment Arms	TN	MA.4.GLE 0406.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 5			

Activity/Lesson	State	Standards	
Jet Propulsion	TN	MA.5.GLE 0506.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Jet Propulsion	TN	MA.5.GLE 0506.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Jet Propulsion	TN	MA.5.GLE 0506.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Jet Propulsion	TN	MA.5.GLE 0506.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Vectoring	TN	MA.5.GLE 0506.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.
Vectoring	TN	MA.5.GLE 0506.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Vectoring	TN	MA.5.GLE 0506.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Vectoring	TN	MA.5.GLE 0506.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Center of Gravity, Pitch, Yaw	TN	MA.5.GLE 0506.4.4	Solve problems that require attention to both approximation and precision of measurement.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	TN	MA.6.GLE 0606.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Jet Propulsion	TN	MA.6.GLE 0606.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.

Jet Propulsion	TN	MA.6.GLE 0606.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Vectoring	TN	MA.6.GLE 0606.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Vectoring	TN	MA.6.GLE 0606.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Vectoring	TN	MA.6.GLE 0606.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	TN	MA.7.GLE 0706.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Jet Propulsion	TN	MA.7.GLE 0706.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Jet Propulsion	TN	MA.7.GLE 0706.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Vectoring	TN	MA.7.GLE 0706.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Vectoring	TN	MA.7.GLE 0706.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Vectoring	TN	MA.7.GLE 0706.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Center of Gravity, Pitch, Yaw	TN	MA.7.GLE 0706.2.4	Use ratios, rates and percents to solve single- and multi-step problems in various contexts.

Fuel Efficiency	TN	MA.7.GLE 0706.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Fuel Efficiency	TN	MA.7.GLE 0706.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.
Fuel Efficiency	TN	MA.7.GLE 0706.4.2	Apply proportionality to converting among different units of measurements to solve problems involving rates such as motion at a constant speed.
Fuel Efficiency	TN	MA.7.GLE 0706.5.4	Use descriptive statistics to summarize and compare data.
Exploring the Extreme			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	TN	MA.8.GLE 0806.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Jet Propulsion	TN	MA.8.GLE 0806.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Jet Propulsion	TN	MA.8.GLE 0806.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Vectoring	TN	MA.8.GLE 0806.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.
Vectoring	TN	MA.8.GLE 0806.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.
Vectoring	TN	MA.8.GLE 0806.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.
Fuel Efficiency	TN	MA.8.GLE 0806.1.3	Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.